

INTERNATIONAL SEARCH REPORT

International Application No
PCT/HU2004/000083

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61M5/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | GB 681 098 A (SCHERER CORP R P) 15 October 1952 (1952-10-15) page 2, line 80 - line 90; figures 1-13 page 3, line 14 - line 54 page 5, line 87 - page 6, line 61 ----- | 1-3,5 |
| X | WO 03/066143 A (BUTTY JEAN-FRANCOIS ; NERACHER ARNOLD (CH)) 14 August 2003 (2003-08-14) figures 1-4 page 5, line 22 - page 11, line 25 ----- -/-- | 1,4,5 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

8 November 2004

Date of mailing of the international search report

18.01.2005

Name and mailing address of the ISA

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| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | WO 03/000319 A (DISETRONIC LICENSING AG ; SCHIFFMANN FRANK (CH); HJERTMAN BIRGER (SE)) 3 January 2003 (2003-01-03) page 5, paragraph 2 - page 7, paragraph 1; figures 1-5 page 7, paragraph 8 - page 9, paragraph 3 page 11, paragraph 3 - paragraph 4 ----- | 1 |
| A | US 4 722 728 A (DIXON ALAN J) 2 February 1988 (1988-02-02) cited in the application column 4, line 51 - column 5, line 25; claims 1-11; figures 1-6 ----- | 1-5 |
| A | US 2002/055712 A1 (NERACHER ARNOLD) 9 May 2002 (2002-05-09) paragraph [0008] - paragraph [0010]; figures 1-38 paragraph [0101] - paragraph [0105] paragraph [0157] - paragraph [0164] ----- | 1-5 |

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| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|----------------------------|---------------------|
| GB 681098 | A | 15-10-1952 | NONE | |
| WO 03066143 | A | 14-08-2003 | WO 03066143 A1 | 14-08-2003 |
| WO 03000319 | A | 03-01-2003 | DE 10129583 A1 | 09-01-2003 |
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| | | | EP 1412005 A1 | 28-04-2004 |
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| US 4722728 | A | 02-02-1988 | CA 1284752 C | 11-06-1991 |
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| | | | EP 1242132 A1 | 25-09-2002 |
| | | | WO 0147586 A1 | 05-07-2001 |
| | | | JP 2003518415 T | 10-06-2003 |

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-5

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

These claims essentially define a needleless injection device comprising:

- a lower part
- an upper part
- energy store units
- lock means
- means for releasing the lock
- a start unit of storing min. 60% of the discharge energy
- separate structural components for stretching the start unit (technical effect: injection without an impact with the piston)

2. claims: 6-10

These claims essentially define a needleless injection device comprising:

- a lower part
- energy storage units
- lock means
- means for releasing the lock
- lower part is conical
- the shape of the cartridge is a truncated cone
- the angle of inclination of the cartridge is equal to the conical angle of the interior of the lower part
- discharge hole
- (technical effect: to fit the cartridge into the lower part firmly and jointlessly)

3. claims: 11-14

These claims essentially define a cartridge comprising:

- a diameter from 0,2 mm for the discharge hole
- a piston
- a cylindrical interior
- a wall thickness
- (technical effect: reduce the price of the cartridge)
